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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,450	08/20/2003	Katrina Schmidt	12166	7041

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EXAMINER

COONEY, JOHN M

ART UNIT PAPER NUMBER

1711

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,450

Applicant(s)

SCHMIDT ET AL.

Examiner

John m. Cooney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,8-11,13,14,16-19,21-29,31,34,36-42 and 44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,8-11,13,14,16-19,21-29,31,34,36-42 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0206</u> . | 6) <input type="checkbox"/> Other: _____ |

Applicant's arguments filed 3-6-06 have been fully considered but they are not persuasive.

Rejections under 35 USC 112 are withdrawn in light of applicants' amendments.

The following rejections are set forth as new:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3-4,6,8-11,13,14,16-19, 21-29, 31, 34, 36-42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spitzer et al. (5,340,900).

Spitzer et al. disclose preparations of polyurethane products prepared from hardener composition constituent a) meeting the first polyols of applicants' claims, Lupranol 2042 meeting the second polyol of applicants' claims, Jeffamines, including Jeffamine D2000, meeting the curing component of applicants' claims, and blowing agents including water (see column 3 lines 18-58, column 6 lines 32-39, column 10 lines 38-42, and example 6, as well as, the entire document).

Spitzer et al. differs from applicants' claims in that the ranges of amount values for the hardening composition constituent a) of Spitzer et al. do not correspond exactly

to those for the first polyol of applicants' claims. However, Spitzer et al.'s disclosure (see again column 3 lines 18-58) does indicate overlap with the ranges of values of applicants' claims. Accordingly, it would have been obvious for one having ordinary skill in the art to have varied the amount of the hardening composition constituent a) within the teachings of Spitzer et al. for the purpose of controlling its hardening effect in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Spitzer et al. differs from applicants' claims in that densities as claimed are not exemplified. However, Spitzer et al.'s own teaching (see again column 6 lines 32-39) identifies employment of blowing agent, particularly water, and control of its employment for control of its effect. Accordingly, it would have been obvious for one having ordinary skill in the art to have controlled the amount of water blowing agent within the teachings of Spitzer et al. for the purpose of controlling the pore forming and, accordingly, densification effects in the products realized in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Claims 1,3-4,6,8-11,13,14,16-19, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al. (2002/0169227).

Allen et al. disclose preparations of polyurethane resin formulations prepared from amine initiated polyols meeting the first polyol of applicants' claims, polymer polyols meeting the second polyol of applicants' claims, aminated polyethers, including

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Jeffamines, meeting the curing component of applicants' claims, and blowing agents including water (see example 4, as well as, the entire document).

Allen et al. differs from applicants' claims in that the ranges of amount values for the amine initiated polyols of Allen et al. do not correspond exactly to those for the first polyol of applicants' claims. However, Allen et al.'s disclosure (see paragraph [0034]) does indicate overlap with the ranges of values of applicants' claims. Accordingly, it would have been obvious for one having ordinary skill in the art to have varied the amount of the amine initiated polyols of Allen et al. for the purpose of controlling reactivities of the isocyanate-reactive component in order to arrive at the products of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

The formulated resin components as claimed in claims 1,3-4,6,8-11,13,14,16-19, and 21-24 are not limited to densities.

Claim Rejections - 35 USC § 103

Claims 1,3-4,6,8-11,13,14,16-19, 21-29, 31, 34, 36-42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone (5,006,569) in view of Nodelman et al.(6,586,487).

Stone discloses preparations of polyurethane foams prepared from resin formulations including water blowing agent, isocyanate, polyols having molecular weights within the range of 3500-8000 and hydroxyl values of from 20-100, and reactive

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additives which meet the curing component values as claimed wherein articles having densities of less than 1 pound per cubic foot are obtained (see column 3 line 63 – column 4 line 1, column 5 lines 46-50, column 6 lines 12-54, column 8 lines 29-41, and Tables 6, 9, and 10).

Stone differs from applicants' claims in that it does not particularly require employment of the crosslinking first polyol of applicants' claims. However, Stone does recognize crosslinkers to be useful in the embodiments of their invention to control and mitigate softening effects in products realized. Further, Nodelman et al. discloses crosslinker polyols meeting the defined criteria of the first polyol component of applicants' claims in the preparation of low-density water blown polyurethane foams for the purpose of imparting their crosslinking effect. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the crosslinkers of Nodelman et al. in the preparations of Stone for purpose of controlling or mitigating softening effects in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Applicants' arguments have been considered but rejection is maintained for the reasons set forth above. Stone et al.'s teaching is not seen to be limited to the salts of carbon dioxide and the polyether amines disclosed by Stone et al. That Stone et al. may derive benefits from conversion of their polyether amines to salts does not negate the full teachings of Stone et al. which encompasses non-converted polyether amines. As to the secondary reference, Nodelman et al. is not looked to for the teaching of each

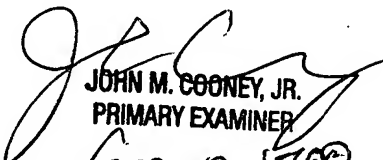
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and every element of applicants' claims, but rather the elements indicated in the rejection above. As to the allegations of new or unexpected results, applicants have not set forth fact based showing of new or unexpected results commensurate in scope with the scope of their claims which are attributable to differences indicated in the rejections above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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